

The Effect of Embedded Lies on the Verbal Quality of Statements and Implications for Credibility Assessment

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Valorisation Addendum

This valorisation chapter addresses the utilisation of scientific knowledge in practice. Besides theoretical relevance, the research described in this thesis also offers practical applications. I have already discussed many of these practical applications in various chapters. Nonetheless, I will highlight several key aspects of knowledge valorisation in this chapter, pertaining to (i) the societal relevance of this research, (ii) the target groups to whom this research concerns, (iii) the activities and services that this research may influence, (iv) the innovative nature of this research, and (v) the implementation and dissemination of these research findings.

Relevance of the Research

Credibility assessment is fundamental to the administration of social and legal justice. For instance, police and legal actors often encounter deceptive or misleading statements from suspects, witnesses, and even victims. Conducting verbal credibility assessment is of particular importance during investigations or legal proceedings in which physical evidence is absent or inconclusive (e.g., Griesel et al., 2013). For example, when US Supreme Court nominee Brett Kavanaugh was accused of historical sexual abuse, the Senate Judiciary Committee arranged a hearing to determine the veracity of the allegations. The Committee was required to form their assessment largely based on the statements made by Kavanaugh and the woman who raised the allegations (Brown, 2018; Estepa & Kelly, 2018). This example illustrates the challenge faced by many legal actors who need to determine the credibility of a suspect or witness solely on the basis of statement evidence.

The assessment of credibility is further complicated by the general inability of both laypeople and legal professionals to detect deception. Decades of research show that lie detection accuracy rates barely exceed chance level (Bond & DePaulo, 2006; Luke et al., 2016; Vrij, 2008a). Accordingly, researchers have invested substantial efforts in developing tools and

techniques for improving these accuracy rates. CBCA and RM are considered favourable tools among researchers and practitioners since, with appropriate training, evaluators' accuracy rates increase from chance level to 65% - 80% (Vrij, 2008a). Still, even under favourable conditions these tools have a high margin of error, which leaves much room for improvement. This research examined how interviewees' strategic inclusion of both truths and lies within a single account may affect statement quality, and the subsequent implications for verbal lie detection.

Target Group

Outside of academic circles, the results of this thesis could be of interest to police and intelligence agencies, legal practitioners (e.g., judges, lawyers, or expert witnesses), and policy makers. These groups are concerned with evaluating the credibility and investigative value of statements. For instance, psychologists and expert witnesses in the Netherlands, Germany, and the UK reportedly use CBCA to determine the veracity of allegations of child sexual abuse (Oberlader et al., 2016). These target groups may benefit from empirical efforts to determine the reliability of verbal credibility assessment tools and techniques. They may further benefit from knowledge regarding the strategies used by liars and the factors that potentially jeopardise the effectiveness of such tools. Practitioners may find the results of this thesis most informative for circumstances in which they are conducting or evaluating credibility assessments in the absence of physical evidence.

I would like to emphasize that the findings reported in this thesis require additional research and replication before robust recommendations can be offered to practitioners working in applied legal contexts.

Activities and Services

The results of this thesis suggest that verbal credibility assessment tools that are based on the criteria measured in this research may be robust against the embedding of lies. It follows that practitioners can cautiously proceed with using these tools as investigative aids. Earlier in

this thesis (Chapter 6), I identified a number of caveats for doing so based on the results of this doctoral research and the broader lie detection literature. Practitioners must be made aware of the limitations of verbal credibility assessment tools. Research in this thesis also examined the efficacy of a within-statement lie detection technique; namely, verbal baselining. Our results suggest that this may not be an effective method of lie detection. Therefore, at present, police practitioners are not advised to use employ similar techniques in the field.

Altogether, the insights gained from this line of doctoral research could be used to improve tools and techniques for assessing the verbal credibility of statements; in particular by exploiting liars' strategy of embedding lies into truthful stories.

Innovation of the Research

The research presented in this thesis is part of a small body of scientific literature that has explicitly examined statements that contain a combination of both truthful and deceptive information. This thesis contributed evidence to solidify the idea that liars will strategically incorporate as much truthful information as possible into their accounts. How this strategy may affect the verbal quality of statements was then investigated across two experiments (Chapters 3 and 4). This revealed insights for the reliability of certain criteria associated with verbal credibility assessment tools.

Previous research has extensively examined verbal credibility assessment tools such as CBCA and RM. The novel contribution of this doctoral research was to advance our understanding of how certain verbal criteria may differ between embedded versus fully fabricated lies, and to what extent this occurs as a function of liars' attempts to maintain consistency. By digging deeper into liars' strategies for formulating deceptive accounts, this research provides insight regarding potential mechanisms behind the production of lies.

In addition, research conducted in this thesis was, to our knowledge, the first to examine whether introducing a baseline comparison that was derived from multiple parts of an

interviewees' statement could facilitate the detection of lies. The findings from this study offer insight into the difficulty of exploiting embedded lies to detect deception and they serve as an innovative addition to research on within-subjects methods of lie detection.

Implementation and Dissemination

The findings of this thesis have already been disseminated in several ways. All studies that were part of this doctoral research line (Chapters 2 through 5) have been published in international peer-reviewed journals. To encourage accessibility, these articles were published in open-access journals and were also made publically available on ResearchGate. Additionally, all of these studies have been presented at international conferences that were attended by both academic researchers and legal practitioners.

I have also made efforts to communicate my research findings to a wider lay audience. I have actively promoted my research and findings on social media platforms, such as Twitter and LinkedIn. I also wrote a press release with the University of Portsmouth for one of my doctoral studies (Chapter 2), which was picked up by over 40 international news outlets and 8 blogs, including *The Times* and the *British Psychological Society (BPS)'s Research Digest*. Finally, I was interviewed as part of a Canadian Broadcasting Corporation (CBC) Radio-Canada documentary on investigative interviewing and deception detection. I hope to continue to conduct research and to communicate scientific findings to diverse audiences throughout my career. I also intend to continue doing outreach activities and presentations to motivate young students to pursue studies in the areas of legal and forensic psychology.